

IN THE CLAIMS:

Please amend claims 1 and 3-5 and add new claims 10-26 as follows.

1. (Currently Amended) A system ~~for providing a policy based Quality-of-Service management in multi-radio access mobile networks~~, comprising:

a controller-center means for administrating configured to administrate said multi-radio access mobile networks, thereby controlling and to control the a behavior thereof said multi-radio access mobile networks,

wherein an information model is implemented in said controller-center means which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy ~~thus representing the~~ to represent manageable parameters of specific network implementations, wherein functions under policy include admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

a processor configured to ~~wherein said information model forms the basis of a set of policy rules based on the information model, wherein said set of rules defines~~ actions to be executed in dependency of ~~the~~ an occurrence of conditions; and

a policy based management device ~~adapted~~ configured to receive said set of rules for the implementation thereof,

said device having

a plurality of policy based radio resource management ~~means~~devices each adapted for managing configured to respectively manage said parameters of specific network implementations, and

a translation function ~~device means adapted~~configured to translate said rules ~~in a form~~into a form executable by said plurality of policy based radio resource management ~~means~~devices.

2. (Original) A system according to claim 1, wherein said set of rules is implemented in a policy server.

3. (Currently Amended) A system according to claim 1, wherein said control center ~~means~~ comprises a user interface ~~for entering~~configured to enter and/or ~~selecting~~select a policy according to a specific subset of rules.

4. (Currently Amended) A system according to claim 1, wherein said control center ~~device~~ further comprises a configuration data base ~~for storing~~configured to store said parameters.

5. (Currently Amended) A system according to claim 1, ~~said system~~ further comprising:

a policy enforcement means device representing configured to represent entities
whose behavior is going to be managed by said policy rules;

a policy decision means device defining configured to define a group of
functionalities in charge of acquiring, deploying and translating said policy rules into a
form executable by said policy enforcement ~~means~~device;

a policy repository means for containing device configured to contain the policies
defined by an administrator of said radio access networks;

a management information base means device for informing configured to inform
about the behavior of said policy enforcement ~~means~~device; and

a policy information base means for containing device configured to contain
possible rules of all relevant functions of a specific policy enforcement ~~means~~device so
that said rules can be downloaded by said policy decision ~~means~~device into said policy
enforcement ~~means~~device.

6. (Withdrawn) A method of providing a policy based Quality-of-Service
management in multi-radio access mobile networks, comprising the steps of:

defining an information model by

modeling radio Quality-of-Service functions,

abstracting implementation details from configuration and management
parameters thereof,

identifying manageable parameters of these, and

building policy rules for the execution of certain actions in dependency of the occurrence of certain conditions among said manageable parameters;

evaluating the conditions; and

executing, in dependency from said evaluation step, those actions which are prescribed by said policy rules as a consequence from the occurrence of certain conditions,

wherein said policy rules are administrated by a central controlling point if they take effect on the Quality-of-Service behavior at the network level.

7. (Withdrawn) A method according to claim 6, wherein submitted policy rules are checked for their service logic consistency.

8. (Withdrawn) A method according to claim 6, wherein a data structure is generated by a management information base which is specific for a point where a policy rule is enforced.

9. (Withdrawn) A method according to claim 6, comprising the further step of distributing functions resulting from policy rules into logical elements of control nature and/or user nature for enabling local decisions on local conditions, wherein the service logic of said elements remains under the control and administration of a policy server.

10. (New) An apparatus, comprising:

a controller configured to administrate multi-radio access mobile networks to control a behavior of said multi-radio access mobile networks,

wherein an information model is implemented in said controller which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy to represent manageable parameters of specific network implementations, wherein functions under policy include admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control, and

a processor configured to form a set of policy rules based on said information model, wherein the set of rules defines actions to be executed in dependency of an occurrence of conditions.

11. (New) An apparatus according to claim 10, wherein said controller comprises a user interface configured to enter and/or select a policy according to a specific subset of rules.

12. (New) An apparatus according to claim 10, wherein said controller comprises a configuration data base configured to store said parameters.

13. (New) An apparatus, comprising:

administrating means for administrating multi-radio access mobile networks for controlling a behavior of said multi-radio access mobile networks;

implementing means for implementing an information model which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy to represent manageable parameters of specific network implementations, wherein functions under policy include admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

processing means for forming a set of policy rules based on said information model, wherein said set of rules defines actions to be executed in dependency of an occurrence of conditions.

14. (New) A method, comprising:

administrating multi-radio access mobile networks to control a behavior of said multi-radio access mobile networks;

implementing an information model which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy to represent manageable parameters of specific network implementations, wherein functions under policy include admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

forming a set of policy rules using said information model to define actions to be executed in dependency of an occurrence of conditions.

15. (New) A method according to claim 14, further comprising:
entering and/or selecting a policy according to a specific subset of rules through a user interface.

16. (New) A method according to claim 14, further comprising:
storing said parameters in a configuration data base.

17. (New) A system, comprising:
controlling means for administrating multi-radio access mobile networks and for controlling a behavior of multi-radio access mobile networks,
wherein an information model is implemented in said control center means which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy for representing manageable parameters of specific network implementations, wherein functions under policy include admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control, and

processing means for forming a set of policy rules based on said information model, wherein said set of rules defines actions to be executed in dependency of an occurrence of conditions; and

policy based management device means for receiving said set of rules for the implementation thereof,

said policy based management device means having

plurality of policy based radio resource management means each for respectively managing said parameters of specific network implementations, and

a translation function means for translating said set of rules into a form executable by said plurality of policy based radio resource management means.

18. (New) An apparatus, comprising:

a receiver configured to receive a set of rules defining actions to be executed in dependency of an occurrence of conditions;

a processor configured to implement the set of rules;

a plurality of controller configured to perform policy based radio resource management and to respectively manage parameters of specific network implementations which concern functions including admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

a translator configured to translate the rules into a form executable by the plurality of controller.

19. (New) An apparatus according to claim 18, further comprising:

an evaluator configured to evaluate the conditions;

an executor in operable connection with the evaluator and configured to execute actions prescribed by said policy rules as a consequence from the occurrence of certain conditions; and

an administrator configured to administrate said policy rules if they take effect on the Quality-of-Service behavior at the network level.

20. (New) An apparatus according to claim 19, further comprising:

a distributor configured to distribute functions resulting from policy rules into logical control plane elements and/or logical user plane elements.

21. (New) An apparatus, comprising:

receiving means for receiving a set of rules defining actions to be executed in dependency of an occurrence of conditions;

implementation means for implementing the set of rules;

a plurality of policy based radio resource management means for respectively managing parameters of specific network implementations which concern functions

including admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

translation function means for translating said rules into a form executable by said plurality of policy based radio resource management means.

22. (New) A method comprising:

receiving a set of rules defining actions to be executed in dependency of an occurrence of conditions;

implementing the set of rules;

respectively managing parameters of specific network implementations which concern functions including admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

translating said rules into a form executable by a plurality of controller configured to perform policy based radio resource management.

23. (New) A method according to claim 22, further comprising:

evaluating the conditions;

executing actions prescribed by said policy rules as a consequence from the occurrence of certain conditions; and

administrating said policy rules if they take effect on the Quality-of-Service behavior at the network level.

24. (New) A method according to claim 23, further comprising:

distributing functions resulting from policy rules into logical control plane elements and/or logical user plane elements.

25. (New) A computer program embodied on a computer readable medium, the computer program being configured to control a processor to perform:

administering multi-radio access mobile networks to control a behavior of said multi-radio access mobile networks;

implementing an information model which describes different Quality-of-Service mechanisms including attributes which are involved in each function under policy to represent manageable parameters of specific network implementations, wherein functions under policy include admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

forming a set of policy rules using said information model to define actions to be executed in dependency of an occurrence of conditions.

26. (New) A computer program embodied on a computer readable medium, the computer program being configured to control a processor to perform:

receiving a set of rules defining actions to be executed in dependency of an occurrence of conditions;

implementing the set of rules;

respectively managing parameters of specific network implementations which concern functions including admission control for new radio access bearers and radio bearers, and/or a dynamic configuration of a packet scheduler and/or a load control; and

translating said rules into a form executable by a plurality of controller configured to perform policy based radio resource management.